

Reviewer bh Permit # 06SOKP1P9108
Date 9/30/08 Company Taylor International, Inc.
Well # Marco #4
Location: NE /4; Sec 18, T 19N, R06 E; 610' F S L 840' F E L

TECHNICAL REVIEW

Type of Injection Well: SWD/Conversion/Active

Injection: Continuous

Approximate # Days operating/year 365
Rate (B/M): Average Maximum 3000
Wellhead Pressure (psi): Average Maximum
Fluid: TDS SP.GR. Analysis Included: [Yes/No]
Source (Formation Name): Skinner

Geologic Data (All references to depths are below land surface)

Base of Historical Usable Water:
Base of USDW and How Determined: 400'-well Ceasar #4, OK0163, NE/4, 18-19N-

06E

Injection Interval: Top 2756'-2800'

Effective Thickness 49'

Formation Name Oswego Lithology
Porosity (%) 6.8 Initial Reservoir Pressure Date
Permeability (md) 2.7
Confining Zones: Thickness between injection zone & USDW 2356'
Lithology
Cumulative Shale Thickest Shale Zone (Interval)

Well Data: (All references to depths are below land surface)

Surface Elevation GL 862' Total Depth 3482'
Date Drilled or to be Drilled 2/16/82 Plugged Back Depth 2900
Date Converted
Type Logs Available (this well/offset well): (By reference/included)

Test Data (By reference/included)

Construction:	Size (In.)	Depth Interval	Sacks of Cement	Hole Size	Cement Interval	How Determined
Surface Csg.	<u>8 5/8"</u>	<u>0-530'</u>	<u>400</u>	<u>12 1/4"</u>	<u>0-530'</u>	<u>Calculated</u>
Intermediate Csg.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Long String Csg.	<u>4 1/2"</u>	<u>0-3480'</u>	<u>300</u>	<u>7 7/8"</u>	<u>3480'-1926'</u>	<u>Calculated</u>
Liner Csg.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Tubing	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Packer type & depth <u>Tension – 2706'</u>					
Type Cement =	ft ³ / Sx.	X	# of Sx.	Total ft ³ of Cement	Lin ft / ft ³ from tables =
	<u>1.18</u>		<u>400</u>	<u>472</u>	<u>2.4229</u>
	<u>1.18</u>		<u>300</u>	<u>354</u>	<u>4.3899</u>

Area of Review (AOR) (1/4 mile - Osage; 2 mile - O.I.L.)

Map Submitted: Yes Tabulation of Wells Submitted: Yes
Faults Located: None Present
Number of Wells in AOR: Abandoned 4 Production 5 SWD EOR 0
Number of Wells in Zone of Endangering Influence
Number of Wells Requiring Corrective Action: SWD EOR

Well	Well Type	Problem	Corrective Action Required
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Maximum Injection Pressure Calculation: Pm=(Frac Gradient - (.433 X SP.GR.)) X Depth

Pm = (.75 - (.433 X)) X = (Psi) (Used 400 psig.)

Well **Passes** Technical Review

Date 9/30/08 Reviewer BH